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OBJECTIVES: To estimate the budget impact of saxagliptin/metformin XR fixed-dose combination introduction as a treatment option for patients with type 2 diabetes mellitus (T2DM), compared to the present situation, in Chile. **METHODS**: An MS Excel-based budget impact model assuming coverage for one million people. The time horizon was three years and the analysis perspective was the National health Insurance system in Chile (FONASA). Prevalence information was obtained from published literature. Pharmaceutical expenses of oral anti-diabetic agents were analyzed excluding other medical costs. The cost of oral anti-diabetic agents was based upon list prices adjusted to co-payments, expressed in Chilean pesos 2012 (exchange rate 1US$ = 487.8 CH$). The market share of the different drugs was based upon QUALIDIAB Database, market studies and data provided by Bristol Myers Squibb. The budget impact is reported in terms of annual budget impact, per-member per-month (PMPM) and per-patient per-month (PPPM). A Monte Carlo simulation (10,000 iterations) was done as part of the sensitivity analysis. **RESULTS**: The net budget impact estimated for the introduction of saxagliptin/metformin XR combined was $2,772,663 for the first year, $25,680,312 for the second year and $81,609,192 for the third year; the cumulative net budget impact was $110,062,166. PMPM was $0.23, $2.14 and $6.8 for the first, second and third year respectively. PPPM was $9.2, $85.0 and $270.3 each year, respectively. The cumulative impact in the total annual budget for oral anti-diabetic agents represented an increase of 1.6%. Monte Carlo simulation showed that cumulative budget impact varied from 1.1 to 1.8%. **CONCLUSIONS**: This study showed that the introduction of saxagliptin/metformin XR combined, as a treatment option for patients with T2DM, into the national health insurance system of Chile (FONASA) would have a minimal budgetary impact.

PDB25

EVALUATION OF THE PHARMACY BUDGET IMPACT OF ALOGLIPTIN PLUS PIOGLITAZONE FIXED DOSE COMBINATION IN THE TREATMENT OF TYPE-2 DIABETES MELLITUS

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OBJECTIVES: The US burden of type-2 diabetes mellitus (T2DM) remains high and available treatment options leave patients with the need for innovative and safe treatments. This study assessed the financial consequences of adding alogliptin, a novel DPP4i, plus pioglitazone fixed dose combination (FDC) therapy to a US managed care health plan formulary. **METHODS:** An Excel-based model was developed to evaluate the therapy costs for patients uncontrolled on any pioglitazone- or DPP4i-containing regimen. Baseline costs were estimated for branded DPP4i, GLP1s, and FDCs using national market share and average daily consumption data from IMS National Prescription Audit (2012); wholesale acquisition costs were obtained from Medispan PriceRX (November 2012). Alogliptin/pioglitazone FDC adoption was estimated based on one-year expected uptake and was priced at parity with the leading DPP4i. Budget impact (BI) was calculated as total annual costs and costs per member per month (PMPM). Univariate sensitivity analyses were performed. T2DM prevalence and treatment data were obtained from published sources. The percentage of T2DM patients uncontrolled on pioglitazone and/or DPP4i was estimated from health plan claims analysis from January 2011 to September 2011. **RESULTS:** In a hypothetical health plan of 1,000,000 members, the estimated number of adult T2DM patients not on insulin and uncontrolled on any pioglitazone or DPP4i-containing regimen was 13,779. Assuming proportional adoption of alogliptin/pioglitazone from all branded DPP4i agents, GLP-1, and FDCs, total annual pharmacy costs was $28,015,900 without alogliptin/pioglitazone and $28,024,195 with the new FDC, resulting in a BI of $8,295 ($0.00 PMPM, relative BI 0.03%). In sensitivity analysis, it was assumed that the new FDC pulls share from DPP4i and GLP-1s only, resulting in BI of $12,838 ($0.00 PMPM, relative BI 0.04%). **CONCLUSIONS:** Inclusion of alogliptin/pioglitazone FDC on a formulary provides an additional effective treatment option and is budget neutral, having a negligible impact on the annual pharmacy budget.

PDB26

REDUCING BUDGET IMPACT TO MEXICAN PUBLIC HEALTH CARE SYSTEM WITH THE USAGE OF A NOVEL GLP-1 ANALOGUE FOR UNCONTROLLED T2DM PATIENTS ON BASAL INSULIN REGIMEN

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OBJECTIVES: To estimate annual savings in Mexican public health care system by the usage of lixisenatide for the treatment of uncontrolled type-2 diabetes mellitus patients on basal insulin. **METHODS:** Two different GLP-1 analogues (lixisenatide vs exenatide <on National Formulary>) were evaluated from the perspective of public institution. A cost-minimization and budget impact analysis were conducted. Clinical efficacy was proved to be similar according to reported outcomes on a head-to-head clinical trial which included Mexican patients comparing the once-a-day administration of lixisenatide 20µg vs exenatide 10µg bid. Clinical response on 364 patients was evaluated; no statistical significance difference on reduction for fasting and postprandial glucose levels, as well as corporal weight loss, was reported; adverse events appeared to be less frequent on lixisenatide group than in exenatide group. Direct costs were considered on a decision tree with a temporary horizon of one year. No discount rate was included. Sensitivity analysis results on variables with highest degree of uncertainty were developed. Budget impact analysis was applied to different scenarios varying the estimated number of candidate patients to GLP-1 analogue treatment based on recent results reported on National Survey of Health and Nutrition 2012 (ENSANUT 2012). **RESULTS:** Estimated annual savings account for 279,000 USD. Budget impact reduction was established in 0.0008% for national public expenses in health and 0.0099% for therapeutic goods expenses in main public health institution in Mexico. Sensitivity analysis, showed robustness with base case. Market share scenarios, showed that increasing percentage of penetration (PP) of lixisenatide usage may result in lower impact to institutional budget (5.5 million USD for 0% PP to 5.2 million USD for 100% PP) **CONCLUSIONS:** Glycemic goal level in type-2 diabetes patients can be achieved with the synergy of insulin and lixisenatide with a corporal weight reduction and cost savings compared to exenatide usage.

PDB27

VALUE ASSOCIATED WITH PHARMACY AND MEDICAL BENEFIT INTEGRATION IN A COMMERCIALLY INSURED DIABETIC POPULATION

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OBJECTIVES: To quantify the impact on medical costs of having an integrated medical and pharmacy benefit in the Diabetes Mellitus (DM) population. **METHODS:** Patients who had at least two diabetes ICD-9 codes or two diabetes medications refills between January 1, 2006 and December 31, 2006 were included. Patients with a diabetes diagnosis or diabetes medications within one year before the index date were excluded to ensure a treatment-naïve DM population. Only patients continuously enrolled from January 1, 2006 to December 31, 2011 were included in this retrospective cohort study. The Gemod model with Gamma distribution was utilized to adjust for the baseline disease comorbidity, age, gender, and account type differences. A total of 2090 patients met the eligibility criteria: 1087 in the integrated group (Members using an integrated medical and pharmacy benefit) and 1003 in the non-integrated group (Members using medical and pharmacy benefits from separate providers). **RESULTS:** The average unadjusted annual mean medical costs were $7,299 in the non-integrated group versus $5,561 in the integrated group ($p<0.01$). From year 1 to year 5, the growth of adjusted mean medical costs was 53% in the non-integrated group compared to 47% in the integrated group. The adjusted mean medical costs were higher in the non-integrated group (N=1003) than in the integrated group (N=1087) in each of the five years ($p<0.01$). While treatment naïve DM patients tended to have relatively low inpatient and emergency room costs, in each year, the integrated groups' mean inpatient and emergency room costs were on average $568 lower when compared to the non-integrated group. This observed difference was not statistically significant. **CONCLUSIONS:** The DM patients in the integrated group had lower medical costs and lower inpatient and emergency room costs than their non-integrated counterparts. These results suggest a value to integrated health benefits; further research is required to elucidate the drivers of these observed savings.

PDB29

ESTIMATED COST SAVINGS ASSOCIATED WITH A1C REDUCTIONS IN A LARGE US COMMERCIAL HEALTH PLAN

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OBJECTIVES: The prevalence of diabetes in the US and its economic burden continue to increase. Improving A1c levels is associated with patient-level cost savings. We combined a claims analysis with estimated cost data from published literature to predict cost savings at a health plan level when patients achieve specific A1c reductions. **METHODS:** Adult patients with diabetes and continuous health plan enrollment in 2011 were selected from the HealthCore Integrated Research Database℠, representing a large national health insurer. The distribution of A1c levels in this sample was extrapolated to the health plan level. Estimated 1-year all-cause patient-level cost savings (medical plus pharmacy) associated with reducing A1c from ≥7% to <7% (ADA-recommended), as well as from a mean A1c reduction of ≥1%, were taken from published literature. Costs were adjusted to 2011 levels. **RESULTS**: Among all identified patients mean age was 60.1 years, 47.5% were female, 96.9% had type 2 diabetes, 58.6% had ≥1 OAD fill and 22.9% had ≥1 insulin fill. A1c results were available for 17.0% of patients. Extrapolating the A1c distribution to the health plan level (with 700,000 qualifying patients), 323,895 patients (46.3%) had an A1c ≥7% and 96,556 (13.8%) had an A1c>9%. Mean cost reductions were estimated to be $536 (≥7% to <7%) and $1,169 (1% A1c reduction) per patient. If 25% of patients currently at A1c ≥7% would achieve <7%, the estimated cost savings at the health plan level are $43.4m (±10%: $39.1m to $47.8m). Alternatively, evaluating patients with poor diabetes control (A1c>9%) only, assuming that 50% of these patients experience a mean A1c reduction of ≥1%, the estimated cost savings are $56.4m (±10%: $50.8m to $62.1m). **CONCLUSIONS:** Modest improvements in A1c levels, whether evaluated across the population or only in patients with poor control, would be associated with substantial cost savings at the health plan level.

PDB30

COST ANALYSIS OF TREATMENT SUCCESS TO ACHIEVE A CLINICALLY RELEVANT COMPOSITE ENDPOINT FOR PATIENTS WITH TYPE-2 DIABETES ON LIRAGLUTIDE OR OTHER ANTIDIABETIC THERAPIES IN A CHINESE SETTING

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OBJECTIVES: To investigate the cost of treatment success (cost of control) in patients with type-2 diabetes (T2DM) achieving a composite endpoint of blood glucose, weight and hypoglycaemia with liraglutide 1.2mg once-daily as compared to other relevant antidiabetic therapies in China. **METHODS:** To measure the ability to obtain control of diabetes, a single composite endpoint